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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/569,205 | HIRSCH ET AL. | |
| | Examiner | Art Unit | |
| | Yu (Andy) GU | 4146 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *10/13/2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 February 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/24/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

1. **Claims 1-20** are presented for examination.

### *Information Disclosure Statement*

2. The information disclosure statements (IDS) submitted on 10/13/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

### *Specification*

3. The **abstract** of the disclosure is objected to because the abstract is NOT submitted on **one** separate sheet. Correction is required. See MPEP § 608.01(b). Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### *Drawings*

4. The drawings are objected to because the unlabeled rectangular box (es) shown in the drawings should be provided with descriptive text labels. Corrected drawing sheets in

compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

5. **Claim 5** is objected to because of the following informalities: **claim 5** recites in preamble "The RF stage as claimed in claim 5". This is improper dependence. A claim **can not** be dependent on itself. For the purpose of this examination, **claim 5** is assumed to be dependent on **claim 1**. Appropriate correction is required.

***Double Patenting***

6. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

7. **Claim 1-20** directed to the same invention as that of **claim 1-20** of commonly assigned co-pending application US 20070087723 A1. The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved.

Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer has no effect in this situation since the basis for refusing more than one patent is priority of invention under 35 U.S.C. 102(f) or (g) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. **Claims 1-2, 7-9** and **14-16** are rejected under 35 U.S.C. 102(e) as being anticipated by US 20020169009 A1 Robert Reiner (hereinafter Reiner).

Regarding **claim 1**, Reiner discloses *a RF stage* (see at least Figure 1 and column 1 lines 40-45, where Reiner discloses item 1-5 for radio frequency communication, therefore RF stage) *in a wireless station comprising*:

- *a detector* (see at least Figure 1 item 3) *for detecting a sequence in an incoming signal received by the wireless station and for generating an activation signal* (i.e. wake-up information generated by obtained by the detector) *in response to detecting the sequence* (i.e. pulse sequence) *in the incoming signal* (see at least column 6 lines 57-59 and 66-67, column 7 lines 1-3 and 36-53).

Regarding **claim 2**, Reiner discloses the limitations as shown in the rejection of **claim 1**. Reiner further discloses:

- *characterized in that a baseband stage* (see at least Figure 1 item 5, which comes after a filter unit (e.g. low pass filter), therefore baseband stage) *in the wireless station receives the activation signal and transitions from a low power* (standby mode and operating mode 1) *state to an active* (operating mode 2) *power state in response to receiving the activation signal* (see at least column 3 lines 10-20 and column 7 lines 26-53).

Regarding **claim 7**, Reiner discloses a *wireless station, comprising:*

- *a baseband stage* (see at least Figure 1 item 5) *in a low power state when a signal is not received by the wireless station and a RF stage* (see at least Figure 1 item 1-4) *for detecting a sequence* (i.e. pulse sequence) *in a signal received by the wireless station and for generating an activation* (see at least column 6 lines 66-67 and column 7 lines 1-3)

*signal in response to detecting the sequence, wherein the activation signal is transmitted to the baseband stage to cause the baseband stage to transition from the low power state* (i.e. standby mode and operating mode 1)*to an active* (i.e. operating mode 2) *power state* (see at least column 6 lines 57-59, column 7 lines 36-53).

Regarding **claim 8**, Reiner discloses the limitations as shown in the rejection of **claim** 7. Reiner further discloses *that the RF stage comprises a receiver* (see at least Figure 1 item 1-4) *for detecting the sequence in the signal received by the wireless station and for generating the activation signal in response to detecting the sequence* (see at least column 3 lines 10-20 and column 7 lines 26-53).

Regarding **claim 9**, Reiner discloses the limitations as shown in the rejection of **claim** 7 and **8**. Reiner further discloses that the *receiver comprises a detector* (see at least Figure 1 item 3) *for detecting the sequence in the signal and for generating the activation signal* (i.e. wake-up information) *in response to detecting the sequence* (see at least column 6 lines 57-59 and 66-67, column 7 lines 1-3 and 36-53).

Regarding **claim 14**, Reiner discloses a *method for detecting a sequence in a signal received by a wireless station, comprising the steps of:*

- *detecting the sequence in a RF stage* (see at least Figure 1 item 1-4)*in the wireless station and generating an activation signal in response to detecting the sequence* (see at least column 6 lines 57-59 and 66-67, column 7 lines 1-3 and 36-53).

Regarding **claim 15**, Reiner discloses the limitations as shown in the rejection of **claim 14.** Reiner further discloses the *step of transmitting the activation signal to a baseband stage* (see at least Figure 1 item 5) *in the wireless station to cause the baseband stage to transition from a low*

*power state* (i.e. standby mode and operating mode 1) *to an active power state* (operating mode 2) (see at least column 6 lines 57-59, column 7 lines 36-53).

Regarding **claim 16**, Reiner discloses the limitations as shown in the rejection of **claim 14.** Reiner further discloses *the step of detecting the sequence in a RF stage in the wireless station comprises the step of detecting the sequence in a detector* (see at least Figure 1 item 3) *in the RF stage in the wireless station* (see at least column 6 lines 57-59 and 66-67, column 7 lines 1-3 and 36-53).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. **Claims 3, 10** and **17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiner in view of US 3623097 A Raymond Femenias (hereinafter Femenias), and US 20030112856 A1 Challa et al. (hereinafter Challa).

Regarding **claim 3**, Reiner discloses the limitations as shown in the rejection of **claim 1**. Reiner further discloses that the detector comprises: a filter unit (see at least Figure 1 item 2). Reiner is however silent as to the limitation that the detector *comprises: a delay for inserting a predetermined time delay into the incoming signal and a correlator for receiving the incoming signal and the delayed incoming signal and for generating a correlated signal.* However, in a related field of wireless communication, Femenias discloses a cross-correlation receiver (see at

least Femenias Figure 1) comprising a delay (i.e. Femenias Figure 1 item 66) for inducing a predetermined time-delay to incoming signal, and a correlator (i.e. Femenias Figure 1 item 60) that outputs a correlated signal (see at least Femenias column 3 lines 66-75, column 4 lines 23-29, 51-54). It would have been obvious to a person of ordinary skill in the art to modify Reiner in view of Femenias because Femenias teaches that "modern communications theories establish that the cross-correlation receiver, being equivalent to the matched receiver, offers the best possible signal to noise ratio improvement"(see at least Femenias column 1 lines 20-25).

Reiner and Femenias do not disclose *a peak **detector** for receiving the correlated signal and for detecting the sequence, wherein the peak detector generates the activation signal in response to detecting the sequence.* However, coupling a peak detector to a correlator is well known in the art of signal process circuitry, as evidenced by Challa (see at least Challa paragraph [0031], wherein Challa teaches using a peak detector after a correlator stage to detected a PN sequence). It would have been obvious to a person of ordinary skill in the art to modify Reiner and Femenias in view of Challa to couple a peak detector to the output of the correlator (therefore receiving the correlated signal) in order to identify the peak correlation, which indicates the presence of desired signal (e.g. the wake-up information, therefore generating activation signal in response to detecting the sequence).

Regarding **claim 10**, Reiner discloses the limitations as shown in the rejection of **claim 7, 8** and **9**. Reiner further discloses a filter unit (see at least Figure 1 item 2). Reiner is however silent as to the limitation that the detector *comprises: a delay for inserting a predetermined time delay into the incoming signal and a correlator for receiving the incoming signal and the delayed incoming signal and for generating a correlated signal*. However, in a related field of wireless

communication, Femenias discloses a cross-correlation receiver (see at least Femenias Figure 1) comprising a delay (i.e. Femenias Figure 1 item 66) for inducing a predetermined time-delay to incoming signal, and a correlator (i.e. Femenias Figure 1 item 60) that outputs a correlated signal (see at least Femenias column 3 lines 66-75, column 4 lines 23-29, 51-54). It would have been obvious to a person of ordinary skill in the art to modify Reiner in view of Femenias because Femenias teaches that "modern communications theories establish that the cross-correlation receiver, being equivalent to the matched receiver, offers the best possible signal to noise ratio improvement"(see at least Femenias column 1 lines 20-25).

Reiner and Femenias do not disclose *a peak **detector** for receiving the correlated signal and for detecting the sequence, wherein the peak detector generates the activation signal in response to detecting the sequence.* However, coupling a peak detector to a correlator is well known in the art of signal process circuitry, as evidenced by Challa (see at least Challa paragraph [0031], wherein Challa teaches using a peak detector after a correlator stage to detected a PN sequence). It would have been obvious to a person of ordinary skill in the art to modify Reiner and Femenias in view of Challa to couple a peak detector to the output of the correlator (therefore receiving the correlated signal) in order to identify the peak correlation, which indicates the presence of desired signal (e.g. the wake-up information, therefore generating activation signal in response to detecting the sequence).

Regarding to **claim 17,** Reiner discloses the limitations as shown in the rejection of **claim 14** and **16.** Reiner further discloses a filter unit (see at least Figure 1 item 2). Reiner is however silent as to the limitation *that the step of detecting the sequence in a detector in the RF stage in the wireless station comprises the steps of: inputting the signal into a delay for inserting a*

*predetermined time delay into the signal and inputting the signal and the delayed signal into a correlator for generating a correlated signal.* However, in a related field of wireless communication, Femenias discloses a cross-correlation receiver (see at least Femenias Figure 1) comprising a delay (i.e. Femenias Figure 1 item 66) for inducing a predetermined time-delay to incoming signal, and a correlator (i.e. Femenias Figure 1 item 60) that outputs a correlated signal (see at least Femenias column 3 lines 66-75, column 4 lines 23-29, 51-54), and the correlator takes the delay signal and received signal as input. It would have been obvious to a person of ordinary skill in the art to modify Reiner in view of Femenias because Femenias teaches that "modern communications theories establish that the cross-correlation receiver, being equivalent to the matched receiver, offers the best possible signal to noise ratio improvement"(see at least Femenias column 1 lines 20-25).

Reiner and Femenias do not disclose *inputting the correlated signal into a peak detector for detecting the sequence.* However, coupling a peak detector to a correlator is well known in the art of signal process circuitry, as evidenced by Challa (see at least Challa paragraph [0031], wherein Challa teaches using a peak detector after a correlator stage to detected a PN sequence). It would have been obvious to a person of ordinary skill in the art to modify Reiner and Femenias in view of Challa to couple a peak detector to the output of the correlator (therefore inputting the correlated signal into the peak detector) in order to identify the peak correlation, which indicates the presence of desired signal.

12. **Claims 4, 11** and **18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiner in view of US 4897659 A Donald Mellon (hereinafter Mellon) and US 20010055275 A1 Herrmann et al. (hereinafter Herrmann).

Regarding **claim 4**, Reiner discloses the limitations as shown in the rejection of **claim 1**. Reiner further discloses that the detector comprises: a filter unit (see at least Figure 1 item 2). Reiner is however silent as to the limitation that the detector *comprises: a matched filter having coefficients defined by the sequence and for generating a match signal when the sequence is included in the incoming signal.* However, in a related field of wireless communication, Mellon discloses (see at least Mellon column 5 lines 65-68 and column 6 line 1-3)that a matched filter has an impulse response equal to the time inverse of the impulse response of the desired received (i.e. the sequence) signal (therefore, a matched filter has coefficients defined by the sequence). It would have been obvious to a person of ordinary skill in the art to modify Reiner in view of Mellon to include a matched filter because a matched filter provides the maximum achievable signal-to-nose improvement on the received signal, as discussed by Mellon (see at least Mellon column 6 line 1-3).

Reiner and Mellon do not disclose a *peak detector for receiving the match signal from the matched filter and for generating the activation signal in response to receiving the match signal from the matched filter.* However, coupling a peak detector to a matched filter is well known in the art of signal process circuitry, as evidenced by Herrmann (see at least Herrmann paragraph [0029], wherein Herrmann teaches using a peak detector after a matched filter stage to detected a transmitted sequence). It would have been obvious to a person of ordinary skill in the art to modify Reiner and Mellon in view of Herrmann to couple a peak detector to the output of the matcher filter (therefore receiving the matched signal) in order to identify the peak correlation, which indicates the presence of desired signal (e.g. the wake-up information, therefore generating activation signal in response to receiving the sequence).

Regarding **claim 11**, Reiner discloses the limitations as shown in the rejection of **claim 7, 8** and **9**. Reiner further discloses that the detector comprises: a filter unit (see at least Figure 1 item 2). Reiner is however silent as to the limitation that the detector *comprises: a matched filter having coefficients defined by the sequence and for generating a match signal when the sequence is included in the incoming signal.* However, in a related field of wireless communication, Mellon discloses (see at least Mellon column 5 lines 65-68 and column 6 line 1-3) that a matched filter has an impulse response equal to the time inverse of the impulse response of the desired received (i.e. the sequence) signal (therefore, a matched filter has coefficients defined by the sequence). It would have been obvious to a person of ordinary skill in the art to modify Reiner in view of Mellon to include a matched filter because a matched filter provides the maximum achievable signal-to-nose improvement on the received signal, as discussed by Mellon (see at least Mellon column 6 line 1-3).

Reiner and Mellon do not disclose a *peak detector for receiving the match signal from the matched filter and for generating the activation signal in response to receiving the match signal from the matched filter.* However, coupling a peak detector to a matched filter is well known in the art of signal process circuitry, as evidenced by Herrmann (see at least Herrmann paragraph [0029], wherein Herrmann teaches using a peak detector after a matched filter stage to detected a transmitted sequence). It would have been obvious to a person of ordinary skill in the art to modify Reiner and Mellon in view of Herrmann to couple a peak detector to the output of the matcher filter (therefore receiving the matched signal) in order to identify the peak correlation, which indicates the presence of desired signal (e.g. the wake-up information, therefore generating activation signal in response to receiving the sequence).

Regarding **claim 18**, Reiner discloses the limitations as shown in the rejection of **claim 14** and **16**. Reiner further discloses that the detector comprises: a filter unit (see at least Figure 1 item 2). Reiner is however silent as to the limitation *that the step of detecting the sequence in a detector in the RF stage in the wireless station comprises the steps of: inputting the signal into a matched filter having coefficients defined by the sequence and generating a match signal when the sequence is included in the signal.* However, in a related field of wireless communication, Mellon discloses (see at least Mellon column 5 lines 65-68 and column 6 line 1-3) that a matched filter has an impulse response equal to the time inverse of the impulse response of the desired received (i.e. the sequence) signal (therefore, a matched filter has coefficients defined by the sequence). It would have been obvious to a person of ordinary skill in the art to modify Reiner in view of Mellon to include a matched filter (therefore generating a match signal when the sequence is present in the signal) because a matched filter provides the maximum achievable signal-to-nose improvement on the received signal, as discussed by Mellon (see at least Mellon column 6 line 1-3).

Reiner and Mellon do not disclose *inputting the match signal into a peak detector to cause the peak detector to generate the activation signal in response to receiving the match signal from the matched filter.* However, coupling a peak detector to a matched filter is well known in the art of signal process circuitry, as evidenced by Herrmann (see at least Herrmann paragraph [0029], wherein Herrmann teaches using a peak detector after a matched filter stage to detected a transmitted sequence). It would have been obvious to a person of ordinary skill in the art to modify Reiner and Mellon in view of Herrmann to couple a peak detector to the output of the matcher filter (therefore receiving the matched signal) in order to identify the peak correlation,

which indicates the presence of desired signal (e.g. the wake-up information, therefore generating activation signal in response to receiving the matched signal).

13. **Claims 5,12** and **19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiner in view of US 5818822 A Thomas et al. (hereinafter Thomas)

Regarding **claim 5**, Reiner discloses the limitations a shown in the rejection of **claim 1**. Reiner further discloses that the incoming signal comprise a pulse sequence (see at least column 6 lines 54-59). Reiner does not specifically disclose that the sequence comprises a *Barker sequence.* However, in a related field of wireless communication, Thomas discloses using Barker sequence to modulate message (see at least column 7 lines 1-6). It would have been obvious to a person of ordinary skill in the art to modify Reiner in view of Thomas because Thomas teaches "a Barker sequence has the property of producing a very market correlation peak when it is detected by a transversal filter having coefficient correspond to this sequence."

Regarding **claim 12,** Reiner discloses the limitations as shown in the rejection of **claim 7**. Reiner further discloses that the incoming signal comprise a pulse sequence (see at least column 6 lines 54-59). Reiner does not specifically disclose that the sequence comprises a *Barker sequence.* However, in a related field of wireless communication, Thomas discloses using Barker sequence to modulate message (see at least column 7 lines 1-6). It would have been obvious to a person of ordinary skill in the art to modify Reiner in view of Thomas because Thomas teaches "a Barker sequence has the property of producing a very market correlation peak when it is detected by a transversal filter having coefficient correspond to this sequence."

Regarding **claim 19,** Reiner discloses the limitations as shown in the rejection of **claim 14**. Reiner further discloses that the incoming signal comprise a pulse sequence (see at least column

6 lines 54-59). Reiner does not specifically disclose that the sequence comprises a *Barker sequence*. However, in a related field of wireless communication, Thomas discloses using Barker sequence to modulate message (see at least column 7 lines 1-6). It would have been obvious to a person of ordinary skill in the art to modify Reiner in view of Thomas because Thomas teaches "a Barker sequence has the property of producing a very market correlation peak when it is detected by a transversal filter having coefficient correspond to this sequence."

14. **Claims 13** and **20** are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiner in view of US 5732113 A Schmidl et al. (herein after Schmidl).

Regarding **claim 13,** Reiner discloses the limitations as shown in the rejection of **claim 7**. Reiner does not specifically disclose that the sequence comprises *a sequence of OFDM symbols*. However, in a related art of wireless communication, Schmidl discloses the using of OFDM symbols to carry information (see at least Schmidl abstract). It would have been obvious to a person of ordinary skill in the art to modify Reiner in view of Schmidl because Schmidl teaches that the transmission data via OFDM includes tolerance to multipath delay spread and tolerance to frequency selective fading (see at least Schmidl column 5 lines 1-25).

Regarding **claim 20,** Reiner discloses the limitations as shown in the rejection of **claim 14**. Reiner does not specifically disclose that the sequence comprises *a sequence of OFDM symbols*. However, in a related art of wireless communication, Schmidl discloses the using of OFDM symbols to carry information (see at least Schmidl abstract). It would have been obvious to a person of ordinary skill in the art to modify Reiner in view of Schmidl because Schmidl teaches that the transmission data via OFDM includes tolerance to multipath delay spread and tolerance to frequency selective fading (see at least Schmidl column 5 lines 1-25).

15. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Reiner in view of Thomas, and further in view of Schmidl.

Regarding **claim 6,** Reiner and Thomas disclose the limitations as shown in the rejection of **claim 5**. Reiner does not specifically disclose that the sequence comprises *a sequence of OFDM symbols*. However, in a related art of wireless communication, Schmidl discloses the using of OFDM symbols to carry information (see at least Schmidl abstract). It would have been obvious to a person of ordinary skill in the art to modify Reiner in view of Schmidl because Schmidl teaches that the transmission data via OFDM includes tolerance to multipath delay spread and tolerance to frequency selective fading (see at least Schmidl column 5 lines 1-25).

***Conclusion***

16. The following prior art made of record and not relied upon are considered pertinent to applicant's disclosure:

US **4955038** A Lee et al. describes a RF receiver with extremely low standby power consumption. To minimize power consumption during standby, the analog input from the antenna circuit (including tank resonator) is connected directly to the inputs of a comparator.

US **5732360** A Jarett et al. describes a remote unit has the ability to switch automatically from a public network to a non-public network comprising of private and residential base stations. In the preferred embodiment, the public network is characterized by cells with each cell having a unique identification signal.

US 6600907 B1 Taguchi describes in a CDMA communication apparatus, two receiving circuits provided in correspondence with the antennas demodulate signals received by the antennas to

thereby output reception signals. Two delayprofile circuits provided in correspondence with the receiving circuits shift phases of the reception signals from the receiving circuits every predetermined interval, correlate the reception signals with respect to the known data to thereby output correlation value data.

US 6289228 B1 Rotstein et al. describes a method of reducing power consumption in a communication device includes a step of acquiring a signal on a common pilot channel of a radio communication system. A next step includes detecting predetermined bits in the signal on the common pilot channel indicating activity on paging channels of the radio communication system.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yu (Andy) GU whose telephone number is (571)270-7233. The examiner can normally be reached on Mon-Friday 7:30AM-5:00PM Est..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ramesh Patel can be reached on 571-272-3688. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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